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EXAMINER
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ART UNIT	PAPER NUMBER
2143	

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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/965,430	KRISHNAN ET AL.
	Examiner	Art Unit
	Kyung H. Shin	2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE **3** MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 February 2005*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-92* is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-92* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 September 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All · b)☐ Some * c)☐ None of:

　　　　1.☐ Certified copies of the priority documents have been received.

　　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)　Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)　Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   This action is responding to application papers filed 9/27/2001.

2.   Claims **1 - 92** are pending. Independent claims are **1, 32, 63**.

Claim Rejections - 35 USC § 112

3.   Regarding claim 1, the phrase "substantially" renders the claim indefinite because

it is unclear whether the limitation(s) following the phrase are part of the claimed

invention. See MPEP § 2173.05(d).

Claim Rejection - 35 USC § 102

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   **Claims 1, 3, 32, 34, 63, 65** are rejected under 35 U.S.C. 102(e) as being

anticipated by **Wallach et al.** (US Patent No. 6,292,905).

Regarding Claims 1, 32, 63, Wallach discloses in a computer network having a

plurality of nodes for interacting with computer network information, a system, computer

program product, method for managing said plurality of nodes comprising:

a) means for establishing a DDB in each of said nodes; (see Wallach col. 5, lines

21-23; col. 5, lines 32-34: distributed directory database for each network node)

and

b) means for controlling contents of each said DDB to be substantially identical to

contents of every other said DDB and in a manner to avoid a single point of

failure. (see Wallach col. 4, lines 25-27; col. 3, lines 40-45; col. 6, lines 21-24:

information on each network node replicated (i.e. identical copy), avoid single

point of failure)

Regarding Claims 3, 34, 65, Wallach discloses the system of claim 1 and wherein said

interacting includes receiving, storing, modifying, and transmitting. (see Wallach col. 9,

lines 44-54; col. 10, lines 21-22: interface capabilities to manipulate (storing, modifying)

distributed directory database information; col. 5, lines 32-34: replicating (i.e. receiving,

transmitting) database information)

Claim Rejection - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. **Claims 2, 4, 5, 6, 9, 33, 35, 36, 37, 40, 64, 66, 67, 68, 71** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Wallach** in view of **Taylor** (US Patent No. 5,664,170).

Regarding Claims 2, 33, 64, the system of claim 1 and wherein:

Wallach discloses said computer network information comprises both computer data and domain configuration status and a unique identifier affiliation for network node. (see Wallach col. 5, lines 21-23: distributed database of network resource information; col. 5, lines 59-63: unique identifier for network node). Wallach does not specifically disclose an IP addressing scheme. However, Taylor discloses:

a) said each of said nodes has a unique IP address; (see Taylor col. 4, lines 29-33; col. 10, lines 48-52; col. 13, lines 17-20: IP addressing scheme for network communications) and, said DDB establishing means further comprises:

   i) means for associating each said unique IP address with its respective node to provide an IP-address-respective-node association; a network IP association (see Taylor col. 4, lines 29-33; col. 10, lines 48-52; col. 13, lines 17-20: IP addressing scheme for network communications and an association between address and network node)

ii) means for distributing said network IP association to said DDB in each of said

nodes; (see Wallace col. 4, lines 25-27; col. 5, lines 32-34: database

information replicated (i.e. identical copies) to network nodes) and,

said contents controlling means further comprises:

a) means for maintaining the most current of said domain configuration status in

said DDB in each of said nodes. (see Wallace col. 4, lines 25-27; col. 5, lines 32-

34: database information replicated (i.e. identical copies) to network nodes)

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Wallach to enable unique IP addressing scheme for

network communications as taught by Taylor. One of ordinary skill in the art would be

motivated to employ Zondervan in order to enable an efficient and flexible

reorganization of the network structure within a network environment. (see Taylor col.

2, lines 18-20: " ... *provide a network system that permits flexible reorganization of the*

network structure ... ")

Regarding Claims 4, 35, 66, Wallach discloses the system of claim 2 and wherein said

controlling means further comprises:

a) means for selecting one of said plurality of nodes as a master node; (see Wallach

col. 3, lines 46-50: designation primary server (i.e. master node) and secondary

server)

b) means for subordinating all other of said plurality of nodes to said master node in

a configuration defined by said master node and said all other of said plurality of

nodes; (see Wallach col. 3, lines 46-50: primary (i.e. master) server main interface

to distributed directory database information) and,

c) said master node including means for responding to a change to said domain

configuration status in a manner to maintain said contents of each said DDB

substantially identical to said contents of every other DDB. (see Wallach col. 3,

lines 50-54: database information updated to reflect selection of new primary (i.e.

master) server (i.e. node))

Regarding Claims 5, 36, 67, Wallach discloses the system of claim 4 and wherein said

controlling means further comprises: means for replacing said master node with

another node if said master node fails. (see Wallach col. 3, lines 50-54: primary server

(i.e. master node) fails, backup server elevated to primary, database information

updated to reflect node failure or modifications)

Regarding Claims 6, 37, 68, Wallach discloses the system of claim 5 and wherein said

master node replacing means includes means for replacing said master node with

another node selected from said configuration. (see Wallach col. 3, lines 50-54: primary

server (i.e. master node) fails, backup server elevated to primary, database information

updated to reflect network node failure and replacement)

Regarding Claims 9, 40, 71, Wallach discloses the system of claim 5 and wherein said

computer network is a client-server network having a graphical user interface and

wherein said replacing means further comprises: means, utilizing said graphical user

interface, for invoking a select master dialog by which said user can select said another

node. (see Wallach col. 9, lines 44-54: interface for manipulation (i.e. selection of node)

of database information)

8.   **Claims 7, 8, 10, 13 - 16, 19 - 22, 25 - 27, 38, 39, 41, 44 - 47, 50 - 60, 69, 70, 72, 75**

- 78, 81 - 91 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Wallach-**

Taylor as applied to claims 1, 2, 4 above, and further in view of **Bunnell** (US Patent No.

6,192,405).

Regarding Claims 7, 38, 69, Wallach discloses the system of claim 4 and wherein said

change to said domain configuration status is selected from the group of changes

consisting of:

> b) a third node failing in said configuration; and, a network link failing between a '
>
>   fourth node in said configuration and said master node. (see Wallach col. 6, lines
>
>   13-18: detection of network resource (i.e. third, fourth nodes) failure, information
>
>   updated to reflect failure)

> Wallach does not specifically disclose the addition of network resources
>
> within a distributed directory database. However, Bunnell discloses:

> a) adding a first node to said configuration; deleting a second node from said
>
>   configuration; (see Bunnell col. 3, lines 47-49; col. 4, lines 27-30; col. 7, lines 31-
>
>   39: distributed directory database, add network resource (i.e. network node))

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Wallach to enable capability for addition of a

network resource (i.e. network node) as taught by Bunnell. One of ordinary skill

in the art would be motivated to employ Bunnell in order to optimize and

centralize management of network resources within a network environment. (see

Bunnell col. 1, lines 53-58: "... *improved method and apparatus for managing*

access to resources in a computer system   ... method and apparatus for

centralized access control to resources through a management service ... ")

Regarding Claims 8, 39, 70, Wallach discloses the system of claim 7 and wherein said

computer network is a client-server (see Wallach col. 2, lines 59-61: client-server)

network having a graphical user interface and wherein said selecting means further

comprises: means, utilizing said graphical user interface, for invoking a select master

dialog by which said user can select said one of said plurality of nodes. (see Wallach

col. 9, lines 44-54: interface for manipulation of database information)

Regarding Claims 10, 41, 72, Wallach discloses the system of claim 7 and wherein

said responding means further comprises:

  a) first means for handling said third node failing under conditions in which said

     master node is known to said third node; (see Wallach col. 6, lines 13-18; col. 6,

     lines 21-24: database updated to reflect failure of network resource (i.e. network

     node, third node)) and,

    b) second means for handling said third node failing under conditions in which said

       master node is unknown to said third node. (see Wallach col. 6, lines 13-18; col.

       6, lines 21-24: database updated to reflect failure of network resource (i.e.

       network node, third node))

Regarding Claims 13, 44, 75, Wallach discloses the system of claim 10 and wherein

said conditions in which said master node is unknown to said third node include both

said third node failing while it is being added to said configuration and said master node

was replaced during time of failure of said third node. (see Wallach col. 3, lines 40-45;

col. 3, lines 50-54; col. 6, line 13-18: primary server (i.e. master node) replaced due to

node failure, capability to update database in the event of network resource failure)

Regarding Claims 14, 45, 76, Wallach discloses the system of claim 13 and wherein

said second means further comprises:

    a) means, employed by said master node, for repetitively pinging said third node at

       predetermined intervals until said third node recovers and sends a recovery

       signal to said master node; (see Wallach col. 2, lines 20-26; col. 6, lines 21-24;

       col. 6, lines 30-33: communication link (i.e. handshake, poll), update database to

       reflect recover of network resource (i.e. network node)) and,

    b) said master node including means, responsive to said recovery signal, for

       updating the DDB in said third node as may be needed. (see Wallach col. 6, lines

       30-33: update distributed directory database to reflect recover of network

       resource (i.e. network node))

Regarding Claims 15, 46, 77, Wallach discloses the system of claim 14 and wherein said third node DDB updating means includes means for handshaking between said master node and said third node. (see Wallach col. 2, lines 20-26; col. 6, lines 21-24: mirror server link (i.e. handshake) between systems or LAN communications (i.e. handshake) to detecting network resource (i.e. server, object) failure)

Regarding Claims 16, 47, 78, Wallach discloses the system of claim 7 and wherein said responding means further comprises: means for handling said network link failing. (see Wallach col. 6, lines 13-18: process network resource (i.e. network node, communications link) failure)

Regarding Claims 19, 50, 81, Wallach does not disclose addition of network resources in a distributed directory database. However, Bunnell discloses the system of claim 7 and wherein said responding means further comprises: means for handling said adding a first node to said configuration. (see Bunnell col. 3, lines 47-49; col. 4, lines 27-30; col. 7, lines 31-39: distributed directory database, addition of network resource (i.e. network node))

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wallach to enable capability for addition of network resources (i.e. network nodes) as taught by Bunnell. One of ordinary skill in the art would be motivated to employ Bunnell in order to optimize and centralize management of network resources in a network environment. (see Bunnell col. 1, lines 53-58)

Regarding Claims 20, 51, 82, Bunnell discloses the system of claim 19 and wherein

said first node adding handling means comprises: means for determining if said first

node is being added through said master node to obtain a master-added node or

through one of said all other of said plurality of nodes to obtain a portal-added node.

(see Bunnell col. 3, lines 47-49; col. 4, lines 27-30; col. 7, lines 31-39: distributed

directory database, addition of network resources (i.e. server or portal network node))

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Wallach to enable capability for addition of network

resource (i.e. network node) as taught by Bunnell. One of ordinary skill in the art would

be motivated to employ Bunnell in order to optimize and centralize management of

network resources in a network environment. (see Bunnell col. 1, lines 53-58)

Regarding Claims 21, 52, 83, Wallach discloses the system of claim 20 and wherein

said determining means, for the condition of said master-added node, further

comprises:

a) said master node including means for updating the DDB in said master node with

the IP address of said first node and for informing said first node that the first

node's master is said master node; (see Wallach col. 9, lines 44-54: interface for

manipulation of database information (i.e. set master node))

b) said first node including means, responsive to operation of said informing means,

for entering the IP address of said master node in the DDB of said first node and

for acknowledging said master node; (see Wallach col. 5, lines 59-63; col. 6,

lines 42-46; col. 9, lines 44-47: unique identifier (i.e. IP address) for network

node, interface for manipulation of database information) and,

c) said master node including means for sending said IP address of said first node

   as an update to all other nodes in said configuration. (see col. 4, lines 25-27; col.

   5, lines 32-34: replication, update information transmitted to network nodes)

Regarding Claims 22, 53, 84, Wallach discloses the system of claim 21 and wherein

said IP address sending means further comprises: means for performing a master to

node handshake between said master node and said all other nodes in said

configuration. (see Wallach col. 2, lines 20-26; col. 6, lines 21-24: mirror server link (i.e.

handshake) between systems or LAN communications (i.e. handshake) to detect

network resource (i.e. server, object) failure)

Regarding Claims 25, 56, 87, Bunnell discloses the system of claim 8 and wherein

said responding means further comprises: means for handling said deleting a second

node from said plurality of nodes. (see Bunnell col. 3, lines 47-49; col. 4, lines 27-30;

col. 7, lines 31-39: distributed directory database, add delete network resources (i.e.

network node))

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Wallach to enable capability for deletion of network

resource (i.e. network node) as taught by Bunnell. One of ordinary skill in the art would

be motivated to employ Bunnell in order to optimize and centralize management of network resources in a network environment. (see Bunnell col. 1, lines 53-58)

Regarding Claims 26, 57, 88, Wallach discloses the system of claim 25 further comprises:

(1) updating the DDB in said master node by removing the IP address of said second node from the DDB of said master node; (see Wallach col. 9, lines 44-54: interface for manipulation of database information)

(2) informing said second node that said configuration no longer includes said second node and detaching said second node from said configuration; (3) erasing all contents of the DDB of said second node; (4) sending an update to all remaining nodes in said configuration. (see Williams col. 4, lines 25-27; col. 5, lines 32-34: replication of database information to network nodes)

Wallach discloses means for utilizing said graphical user interface and means for determining if said second node is removed through said master node. (see Wallach col. 9, lines 44-54: interface for manipulation of database information)

Wallach does not specifically disclose capability to delete (i.e. remove) network node. However, Bunnell discloses wherein said second node deleting handling means further comprises: means, responsive to operation of said determining means removing said second node through said master node, for:

means, for removing said second node from said configuration; means for

determining if said second node is removed through said master node; (see

Bunnell col. 3, lines 47-49; col. 4, lines 27-30; col. 7, lines 31-39: distributed

directory database, add delete network resources (i.e. network node))

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Wallach to enable capability for deletion (i.e.

removal) of network resources (i.e. network nodes) as taught by Bunnell. One of

ordinary skill in the art would be motivated to employ Bunnell in order to optimize

and centralize management of network resources in a network environment.

(see Bunnell col. 1, lines 53-58)

Regarding Claims 27, 58, 89, Wallach discloses the system of claim 26 and wherein

said update sending means further comprises: means for performing a master to node·

handshake between said master node and said all remaining nodes in said

configuration. (see Wallach col. 2, lines 20-26; col. 6, lines 21-24: mirror server link (i.e.

handshake) between systems or LAN communications (i.e. handshake) to detect

network resource (i.e. server, object) failure)

9.   **Claims 11, 12, 17, 18, 23, 24, 28 - 31, 42, 43, 48, 49, 61, 62, 73, 74, 79, 80, 92** are

rejected under 35 U.S.C. 103(a) as being unpatentable over **Wallach-Taylor-Bunnell**

as applied to claims 1, 2, 4, 7, 10 above, and further in view of **Zondervan et al.** (US

Patent No. 6,516,327).

Regarding Claims 11, 42, 73, Wallach discloses means, employed by each of said all

other of said plurality of nodes, for continuously polling said master node at regular

intervals a handshake link to continuous poll at regular intervals (see Wallach col. 2,

lines 20-26; col. 6, lines 21-24: mirror server link (i.e. handshake) between systems or

LAN communications (i.e. handshake) to detect network resource (i.e. server, third

node) failure) Wallach does not disclose the usage of version identification information.

However, Zondervan discloses the system of claim 10 wherein said first means further

comprises:

    a) means for establishing version numbers to identify versions of said DDB in

       each of said plurality of nodes; (see Zondervan col. 5, lines 36-39; col. 3, lines

       9-12: distributed 'database, version identification information)   '

    b) obtain the most current one of said version numbers of the DDB in said

       master node; (see Zondervan col. 14, lines 28-36: obtain most current version

       identification information)

    c) sending said most current one of said version numbers to said third node;

       (see Zondervan col. 14, lines 28-36: obtain most current version identification

       information) and

    d) updating the DDB in said third node if said most current one of said version

       numbers does not match the version number of said DDB in said third node.

(see Zondervan col. 14, lines 36-39; col. 14, lines 59-61: version identification

information comparison and update)

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Wallach to enable the capability to utilize

version identification information in the processing of distributed databases as

taught by Zondervan. One of ordinary skill in the art would be motivated to

employ Zondervan in order to optimize and ensure accurate updates to

distributed networked databases based on version identification information.

(see Zondervan col. 2, lines 57-62)

Regarding Claims 12, 43, 74, Wallach discloses the system of claim 11 and wherein

said third node DDB updating means includes means for handshaking between said

master node and said third node. (see Wallach col. 2, lines 20-26; col. 6, lines 21-24:

mirror server link (i.e. handshake mechanism) between systems or LAN

communications (i.e. handshake mechanism) to detect network resource (i.e. server,

third node) failure)

Regarding Claims 17, 48, 79, Wallach discloses means, employed by each of said all

other of said plurality of nodes, for continuously polling said master node at regular

intervals a handshake link to continuous poll at regular intervals (see Wallach col. 2,

lines 20-26; col. 6, lines 21-24: mirror server link (i.e. handshake) between systems or

LAN communications (i.e. handshake) to detect resource (i.e. server, fourth node

failure) Wallach does not disclose the usage of version identification information.

However, Zondervan discloses the system of claim 16 wherein said network link failing

handling means further comprises:

a) means for establishing version numbers to identify versions of said DDB in each

of said plurality of nodes; (see Zondervan col. 5, lines 36-39; col. 3, lines 9-12:

distributed database, version identification information)

b) means to obtain the most current one of said version numbers of the DDB in said

master node; (see Zondervan col. 14, lines 28-36: obtain most current version

identification information)

c) means for sending said most current one of said version numbers to said fourth

node; (see Zondervan col. 14, lines 28-36: obtain most current version

identification information) and,

d) means for updating the DDB in said fourth node if said most current one of said

version numbers does not match the version number of said DDB' in said fourth

node. (see Zondervan col. 14, lines 36-39; col. 14, lines 59-61: version

identification information comparison and update)

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Wallach to enable the capability to utilize version

identification information processing distributed databases as taught by

Zondervan. One of ordinary skill in the art would be motivated to employ

Zondervan in order to optimize and ensure accurate updates to distributed

networked databases based on version identification information. (see

Zondervan col. 2, lines 57-62)

Regarding Claims 18, 49, 80, Wallach discloses the system of claim 17 and wherein

said fourth node DDB updating means includes means for handshaking between said

master node and said fourth node. (see Wallach col. 2, lines 20-26; col. 6, lines 21-24:

mirror server link (i.e. handshake) between systems or LAN communications (i.e.

handshake) to detect network resource (i.e. server, fourth node) failure)

Regarding Claims 23, 54, 85, Wallach discloses the system of claim 20 and wherein

said determining means, for the condition of said portal-added node, further comprises:

b) means for performing a node to master handshake between said first node and

   said master node; (see Wallach col. 2, lines 20-26; col. 6, lines 21-24: mirror

   server link (i.e. handshake) between systems or LAN communications (i.e.

   handshake) to detect resource (i.e. server, object) failure)

c) said portal node including means for informing said master node of the IP

   address of said first node; (see Wallach col. 4, lines 25-27; col. 5, lines 32-34:

   replication of database information to network nodes)

d) said master node including means for updating the DDB in said master node with

   the IP address of said first node and for informing said first node that the first

   node's master is said master node; (see Wallach col. 9, lines 44-47: interface for

   update and manipulation of database information)

e) said first node including means, responsive to operation of said informing means,

   for entering the IP address of said master node in the DDB of said first node and

for acknowledging said master node; (see Wallach col. 9, lines 44-54: interface

for update and manipulation of database information) and,

f) said master node including means for sending said IP address of said first node

as an update to all other nodes in said configuration. (see Wallach col. 4, lines

25-27; col. 5, lines 32-34: database information replicated or updated to network

nodes)

a) a cache memory included in said portal node; means for holding the IP address

of said first node in said cache memory; (see Zondervan col. 4, lines 58-62:

cache utilized as data storage mechanism)

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Wallach to enable the capability to utilize cache

data storage processing distributed databases as taught by Zondervan. One of

ordinary skill in the art would be motivated to employ Zondervan in order to

optimize and ensure accurate updates to distributed networked databases based

on version identification information. (see Zondervan col. 2, lines 57-62)

Regarding Claims 24, 55, 86, Wallach discloses the system of claim 23 and wherein

said IP address sending means further comprises: means for performing a master to

node handshake between said master node and said all other nodes in said

configuration. (see Wallach col. 2, lines 20-26; col. 6, lines 21-24: mirror server link (i.e.

handshake) between systems or LAN communications (i.e. handshake) to detect

network resource (i.e. server, network node) failure)

Regarding Claims 28, 59, 90, Wallach discloses the system of claim 25 and wherein

said second node deleting handling means further comprises:

    a) means, utilizing said graphical user interface, for removing said second node

        from said configuration; (see Wallach col. 9, lines 44-54: interface for

        manipulation of database information)

    b) means for selecting a portal-removal node other than said master node through

        which to remove said second node from said configuration; (see Wallach col. 9,

        lines 44-54: interface for manipulation of database information)

    e) means, responsive to operation of said determining means removing said

        second node through said portal-removal node and not through said master

        node, for:

        (2) performing a node to master handshake between said portal-removal node

            and said master node; (see Wallach col. 2, lines 20-26; col. 6, lines 21-24:

            mirror server link (i.e. handshake) between systems or LAN communications

            (i.e. handshake) to detect resource (i.e. server, object) failure)

        (3) informing said master node to remove the IP address of said second node

            from the DDB of said master node; see Wallach col. 4, lines 25-27; col. 5,

            lines 32-34: replication of database information to network nodes)

        (4) updating the DDB in said master node by removing the IP address of said

            second node from the DDB of said master node; (see Wallach col. 4, lines 25-

            27; col. 5, lines 32-34: replication of database information to network nodes)

(5) informing said second node that said configuration no longer includes said

second node and detaching said second node from said configuration;

erasing all contents of the DDB of said second node; sending an update to all

remaining nodes in said configuration (see Wallach col. 4, lines 25-27; col. 5,

lines 32-34: replication of database information to network nodes)

Wallach does not disclose the capability to utilize a cache data storage

mechanism and the capability to delete a network resource. However,

Zondervan discloses:

c) a cache memory included in said portal-removal node; (see Zondervan col. 4,

lines 58-62: cache utilized as data storage mechanism)

(1) storing the IP address of said second node in said cache; (see Zondervan col.

4, lines 58-62: cache utilized as data storage mechanism)

And, Bunnell discloses:

d) means for determining if said second node is removed through said master node;

(see Bunnell col. 3, lines 47-49; col. 4, lines 27-30; col. 7, lines 31-39: distributed

directory database, deletion (i.e. removal) of network resources (i.e. network

node))

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Wallach to enable the capability to utilize version

identification information processing distributed databases as taught by

Zondervan, and to enable capability to add, delete network resources (i.e.

network nodes) as taught by Bunnell. One of ordinary skill in the art would be

motivated to employ Zondervan in order to optimize and ensure accurate

updates to distributed networked databases based on version identification

information (see Zondervan col. 2, lines 57-62: " ... *ensure that updates are made*

to the most up-to-date version of the database ... ensure accurate

synchronization of data ... "), and to employ Bunnell in order to optimize and

centralize management of network resources in a network environment. (see

Bunnell col. 1, lines 53-58)

Regarding Claims 29, 60, 91, Wallach discloses the system of claim 28 and wherein

said update sending means further comprises: means for performing a master to node

handshake between said master node and said all remaining nodes in said

configuration. (see Wallach col. 2, lines 20-26; col. 6, lines 21-24: mirror server link (i.e.

handshake) between systems or LAN communications (i.e. handshake) to detect

network resource (i.e. server, network node) failure)

Regarding Claims 30, 31, 61, 62, 92, Wallach discloses the system of claim 22 or 24,

claim 27 or 29 and wherein said master to node handshake performing means

comprises for each one of said all other nodes in said configuration:

    a) first deciding means for deciding if the IP address of said master node in said

        update matches the IP address of said master node contained in the DDB of said

        each one of said all other nodes in said configuration; (see col. 5, lines 59-63:

        primary server (i.e. master node) has unique identifier (i.e. IP address))

b) means, responsive to operation of said first deciding means deciding no match,

for rejecting said update and logging said event; (see Zondervan col. 9, lines 49-

54: interface for manipulation of database information (i.e. actions logged within

database))

Wallach does not disclose the usage of version identification information

processing database information. However, Zondervan discloses:

c) second deciding means, responsive to operation of said first deciding means

deciding a match, for deciding if the version number of the DDB in said master

node before said update matches the version number of said DDB of said each

one of said all other nodes in said configuration before said update; (see

Zondervan col. 14, lines 36-39; col. 14, lines 59-61: version identification

information comparison and update)

d) means, responsive to operation of said second deciding means deciding no

match, for accepting a completely updated DDB with updated version number

from said master node; (see Zondervan col. 14, lines 36-39; col. 14, lines 59-61:

version identification information comparison and update) and,

e) means, responsive to operation of said second deciding means deciding a

match, for accepting only said update with said updated version number from

said master node. (see Zondervan col. 14, lines 36-39; col. 14, lines 59-61:

version identification information comparison and update)

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Wallach to enable the capability to utilize version

identification information processing distributed databases as taught by Zondervan.
One of ordinary skill in the art would be motivated to employ Zondervan in order to
optimize and ensure accurate updates to distributed networked databases based on
version identification information. (see Zondervan col. 2, lines 57-62)

Conclusion

10.   Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Kyung H. Shin whose telephone number is (571) 272-
3920. The examiner can normally be reached on 9 am - 7 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number
for the organization where this application or proceeding is assigned is 703-872-9306.

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KHS

Kyung H Shin
Patent Examiner
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KHS

June 23, 2005
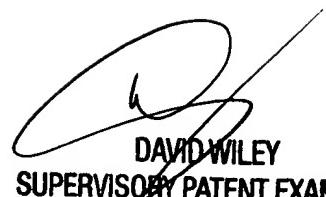
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